

IN THE CLAIMS:

Please cancel claims 26 and 29-30, without prejudice.

- 1 1. (Currently Amended) A fuel for a direct methanol fuel cell comprising:
2 methanol, and
3 ~~an effective amount of an additive that~~ an additive which is a fuel precursor in an
4 effective amount such that said additive undergoes a reaction with water to produce small
5 molecules that are easily electro oxidized.
- 1 2. (Original) A fuel for a direct methanol fuel cell as in claim 1 wherein the addi-
2 tive is dimethyloxymethane.
- 1 3. (Original) A fuel for a direct methanol fuel cell as in claim 2, wherein the fuel
2 comprises about 20 mole percent dimethyloxymethane.
- 1 4. (Original) A fuel for a direct methanol fuel cell as in claim 3 further comprising
2 less than about .1% by weight of an indicating dye.
- 1 5. (Original) A fuel for a direct methanol fuel cell as in claim 4 where the indicating
2 dye includes sulfonated activated carbon particles.
- 1 6. (Original) A fuel for a direct methanol fuel cell as in claim 1 wherein the addi-
2 tive is methylorthoformate.
- 1 7. (Original) A fuel for a direct methanol fuel cell as in claim 6, wherein the fuel
2 comprises about 10 mole percent methylorthoformate.

- 1 8. (Original) A fuel for a direct methanol fuel cell as in claim 7 further comprising
2 less than about .1% by weight of an indicating dye.
- 1 9. (Original) A fuel for a direct methanol fuel cell as in claim 8 where the indicating
2 dye includes sulfonated activated carbon particles.
- 1 10. (Original) A fuel for a direct methanol fuel cell as in claim 1 wherein the additive
2 is tetramethylorthocarbonate.
- 1 11. (Original) A fuel for a direct methanol fuel cell as in claim 10, wherein the fuel
2 comprises about 10 mole percent tetramethylorthocarbonate.
- 1 12. (Original) A fuel for a direct methanol fuel cell as in claim 11 further comprising
2 less than about .1% by weight of an indicating dye.
- 1 13. (Original) A fuel for a direct methanol fuel cell as in claim 12 where the indicat-
2 ing dye includes sulfonated activated carbon particles.
- 1 14. (Original) A fuel for a direct methanol fuel cell as in claim 1 wherein the addi-
2 tive is trimethylborate.
- 1 15. (Original) A fuel for a direct methanol fuel cell as in claim 14, wherein the fuel
2 comprises about 7 mole percent trimethylborate.
- 1 16. (Original) A fuel for a direct methanol fuel cell as in claim 15 further comprising
2 less than about .1% by weight of an indicating dye.
- 1 17. (Original) A fuel for a direct methanol fuel cell as in claim 16 where the indicat-
2 ing dye includes sulfonated activated carbon particles.

- 1 18. (Original) A fuel for a direct methanol fuel cell as in claim 1 wherein the addi-
2 tive is tetramethylorthosilicate.
- 1 19. (Original) A fuel for a direct methanol fuel cell as in claim 18, wherein the fuel
2 comprises about 5 mole percent tetramethylorthosilicate.
- 1 20. (Original) A fuel for a direct methanol fuel cell as in claim 19 further comprising
2 less than about .1% by weight of an indicating dye.
- 1 21. (Original) A fuel for a direct methanol fuel cell as in claim 20 where the indicat-
2 ing dye includes sulfonated activated carbon particles.
- 1 22. (Currently Amended) A fuel for a direct methanol fuel cell comprising:
2 methanol; and
3 ~~at least one additive that~~ an additive which is a fuel precursor in an effective
4 amount such that said additive undergoes a reaction with water to produce small
5 molecules that are easily electro oxidized selected from the group consisting of:
6 dimethyloxymethane, methylorthoformate, tetramethyl orthocarbonate, trimethyl
7 borate, and tetramethyl orthosilicate.
- 1 23. (Original) A fuel for a direct methanol fuel cell as in claim 22 further comprising
2 less than about .1% by weight of an indicating dye.
- 1 24. (Currently Amended) ~~A fuel for a direct methanol fuel cell as in claim 23 where~~
2 A fuel for a direct methanol fuel cell comprising:
3 methanol; and
4 an additive which is a fuel precursor in an effective amount such that said additive
5 undergoes a reaction with water to produce small molecules that are easily electro
6 oxidized selected from the group consisting of: dimethyloxymethane, methylor-
7 thoformate, tetramethyl orthocarbonate, trimethyl borate, and tetramethyl ortho-

8 | silicate and about 0.1% by weight of an indicating dye, and the indicating dye in-
9 | cludes sulfonated activated carbon particles.

1 | 25. (Original) A fuel additive for a direct methanol fuel cell consisting essentially of
2 | at least one additive that undergoes a rapid reaction with water to produce small mole-
3 | cules that are easily electro oxidized selected from the group consisting of: dimethyloxy-
4 | methane, methylorthoformate, tetramethyl orthocarbonate, trimethyl borate, and tetrame-
5 | thyl orthosilicate; and an effective amount of an indicating dye.

1 | 26. (Cancelled)

1 | 27. (Currently Amended) A fuel for a direct methanol fuel cell comprising:
2 | methanol;
3 | an effective amount of an additive which is a fuel precursor in an effective
4 | amount such that said additive ~~that~~ undergoes a reaction with water to produce small
5 | molecules that are easily electro oxidized; and
6 | ~~an effective amount~~ of a metal hydride.

1 | 28. (Currently Amended) A fuel for a direct methanol fuel cell comprising:
2 | methanol; and
3 | an effective amount of at least one additive one or more additives including an
4 | additive which is a fuel precursor in an effective amount such that said additive ~~that~~ un-
5 | dergoes a reaction with water to produce small molecules that are easily electro oxidized
6 | selected from the group consisting of: dimethyloxymethane, methylorthoformate,
7 | tetramethyl orthocarbonate, trimethyl borate, and tetramethyl orthosilicate; and
8 | ~~an effective amount~~ of a metal hydride.

1 | 29-30. (Cancelled)

- 1 31. (Currently Amended) The method of preparing a fuel mixture for a direct metha-
2 nol fuel cell comprising the steps of:
- 3 a) providing a supply of concentrated methanol; and
4 b) adding an ~~effective amount of a at least one additive that~~ an additive
5 which is a fuel precursor in an effective amount such that said additive
6 undergoes a reaction with water to produce small molecules that are easily
7 electro oxidized selected from the group consisting of: dimethyloxyme-
8thane, methylorthoformate, tetramethyl orthocarbonate, trimethyl borate,
9 and tetramethyl orthosilicate.
- 1 32. (Currently Amended) The method of preparing a fuel mixture for a direct metha-
2 nol fuel cell as in claim ~~30~~ 31 further comprising the step of :
- 3 ~~e) providing a supply of concentrated methanol; and adding an effective amount~~
4 ~~of~~ at least one metal hydride selected from the group consisting of LiAlH_4 ,
5 NaBH_4 , LiBH_4 , $(\text{CH}_3)_2\text{NHBH}_3$, NaAlH_4 , B_2H_6 , NaCNBH_3 , CaH_2 , LiH , NaH , KH
6 and sodium bis (2-methoxyethoxy) dihydridaluminum.